

Amendments to the Claims

Claims 1-23 (Cancelled)

Claim 24 (Original): An energy measuring device comprising:

a means for supporting a bimetallic member in a first pre-snap state;
a means for qualifying an energy released by the bimetallic member during transit from the first pre-snap state to a second post-snap state, the qualifying means being positioned relative to the supporting means to be engaged by the bimetallic member in the second post-snap state; and
a means for thermally activating the bimetallic member, the thermally activating means being positioned relative to the supporting means for thermally activating the bimetallic member to transit from the first pre-snap state to the second post-snap state.

Claim 25 (Original): The device of claim 24 wherein the means for qualifying the released energy includes means for measuring a force generated by the bimetallic member.

Claim 26 (Original): The device of claim 25 wherein the means for measuring a force generated by the bimetallic member includes means for measuring a peak force generated by the bimetallic member during the transit from the first pre-snap state to the second post-snap state.

Claim 27 (Original): The device of claim 24 wherein the thermally activating means includes means for thermally activating the bimetallic member in a controlled manner.

Claim 28 (Original): The device of claim 27 wherein the means for thermally activating the bimetallic member in a controlled manner includes means for heating or cooling the bimetallic member at a controlled rate of temperature change.

Claim 29 (Original): The device of claim 24 wherein the means for supporting the bimetallic member in the first pre-snap state includes means structured to support a substantially immobile peripheral portion of the bimetallic member while a substantially mobile portion of the bimetallic member that is located centrally to the peripheral portion is disengaged from the qualifying means.

Claims 30-44 (Cancelled)

- Claim 45 (New): An energy measuring device comprising:
a support structured to support a bimetallic member in a first pre-snap state;
an energy indicator positioned relative to the support to be engaged by the bimetallic member in a second post-snap state; and
a thermal activation device positioned relative to the support for thermally activating the bimetallic member to transit from the first pre-snap state to the second post-snap state.
- Claim 46 (New): The device of claim 45 wherein the energy indicator is further structured for measuring a peak force generated by the bimetallic member during transit from the first pre-snap state to the second post-snap state..
- Claim 47 (New): The device of claim 45 wherein the thermal activation device is further structured for thermally activating the bimetallic member in a controlled manner.
- Claim 48 (New): The device of claim 47 wherein the thermal activation device is further structured for heating or cooling the bimetallic member at a controlled rate of temperature change.
- Claim 49 (New): The device of claim 48 wherein the support structured to support the bimetallic member in the first pre-snap state further comprises structure formed to support a substantially immobile peripheral portion of the bimetallic member while a substantially mobile portion of the bimetallic member that is located centrally to the peripheral portion is free to move relative to the substantially immobile peripheral portion.
- Claim 50 (New): An energy measuring device comprising:
a support structure having spaced apart first and second structural members;
a support engaged with the first structural member and having first and second annular lands formed on an interior thereof, the second annular land being spaced between the first annular land and a surface of the first structural member facing toward the second structural member, the first annular land being sized to admit a thermally responsive bimetallic member and the second annular land being sized to support a peripheral edge portion of the bimetallic member

member and relieved to admit a central portion of the bimetallic member that is movable relative to the peripheral edge portion;

a force indicator engaged with a surface of the second structural member facing toward the first structural member and spaced above the first and second annular lands for measuring a force generated by the central portion of the bimetallic member transitioning between a first state wherein the central portion is proximate to the surface of the first structural member and a second state wherein the central portion is proximate to the force indicator; and

a thermal stage positioned to thermally activate the transitioning of the bimetallic member between the first and second states.

Claim 51 (New): The device of claim 50, further comprising one or more spacers positioned between the bimetallic disc and the force indicator.

Claim 52 (New): The device of claim 51 wherein the one or more spacers are further sized to fill a space between the bimetallic disc and a sensitive operational portion of the force indicator.

Claim 53 (New): The device of claim 53 wherein the support further comprises a sleeve having the first and second annular lands formed therein, the sleeve being sized to admit the bimetallic disc and the one or more spacers.

Claim 54 (New): The device of claim 54 wherein the one or more spacers further comprise a tubular spacer sized to be slidingly engaged within the sleeve, and a drive pin sized to be slidingly engaged within an aperture formed within the tubular spacer, the drive pin being sized to fill the space between the central portion of the bimetallic disc and the sensitive operational portion of the force indicator when the bimetallic disc is in the second state wherein the central portion is proximate to the force indicator, and the tubular spacer being sized to be relatively shorter than the drive pin.

Claim 55 (New): The device of claim 54 wherein the tubular spacer further comprises a thermally insulating material.

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Claim 56 (New): The device of claim 54 wherein the tubular spacer further comprises one of a glass material and a ceramic material.